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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATION NO.	
10/614,957	07/08/2003	So-Hyun Kim	678-965 (P10330) 7135	
66547 7590 01/15/2008 THE FARRELL LAW FIRM, P.C.		EXAMINER		
333 EARLE OVINGTON BOULEVARD			MILLER, BRANDON J	
SUITE 701 UNIONDALE	NY 11553		ART UNIT PAPER NUMBER	
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			01/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application N	0.	Applicant(s)				
	10/614,957		KIM, SO-HYUN				
Office Action Summary	Examiner		Art Unit				
	Brandon J. Mil	ler	2617				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address							
Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS ( 36(a). In no event, h will apply and will exp c, cause the application	COMMUNICATION owever, may a reply be timing SIX (6) MONTHS from to become ABANDONEI	I. tely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status							
1) Responsive to communication(s) filed on 25 O	)⊠ Responsive to communication(s) filed on <u>25 October 2007</u> .						
·—	, , , , , , , , , , , , , , , , , , ,						
•	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims			•				
4) ☐ Claim(s) 1-7 is/are pending in the application.  4a) Of the above claim(s) is/are withdray  5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-7 is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction and/o							
Application Papers							
9)☐ The specification is objected to by the Examine 10)☒ The drawing(s) filed on 7/8/2003 is/are: a)☒ a Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11)☐ The oath or declaration is objected to by the Ex	accepted or b)[ drawing(s) be he tion is required it	eld in abeyance. Seef the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.							
Attachment(s)		_					
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	4) 5) 6)	二 .	ate				

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#### **DETAILED ACTION**

### Response to Amendment

Claims 1-7 remain pending in the application.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 1. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yi et al. (US 2002/0114280 A1) in view of Jiang (US 6,687,248 B2) and Herrmann et al. (US 7,050,415 B2).

Regarding claim 1 Yi teaches a method of setting a transport format combination (TFC) in a broadband code division multiple (CDMA) communication system (see paragraph [0030]). Yi teaches transmitting from a radio resource control layer (RRC) transport format set (TFS) information and transport format combination set (TFCS) information during a channel initialization for data transmission among respective layers of the broadband CDMA communication system (see paragraph [0029], RRC layer initially sending basic measurement information reads on claimed transmitting from a RRC transport format set (TFS) information and transport format combination set (TFCS) information because the measurement information is used to determine TFC sets). Yi teaches selecting at a medium access control (MAC) layer an initial TFC for preferentially allocating a radio bearer to a transmission channel on which a logic

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channel having a relatively high priority among a plurality of transmission channels has been mapped, wherein the allocation is initially achieved by analyzing the received TFS information and the TFCS information (see paragraph [0029] and FIG. 4, MAC Layer allocating radio resources using the initial information reads on selecting at a medium access control (MAC) layer an initial TFC, wherein the allocation is initially achieved by analyzing the received TFS information and the TFCS information). Yi teaches transmitting radio resource information from the MAC layer to a radio link control (RLC) layer including respective logic channels by allocating a radio bearer according to the initial TFC to the respective logic channels before receiving buffer occupancy information from the radio link control (RLC) layer (see paragraph [0030] and FIG. 4). Yi teaches transmitting at the radio link control (RLC) layer initial transmission data along with buffer occupancy information of a transmission buffer to the MAC layer based on the received radio resource information (see paragraph [0031]). Yi does not specifically teach allocating a maximum packet data unit (PDU) value and transmitting an initial PDU value from the MAC layer. Herrmann teaches allocating a maximum packet data unit (PDU) value (see col. 5, lines 24-25). Hermann teaches transmitting an initial PDU value from the MAC layer to a radio link control (RLC) layer by allocating the initial PDU value according to the respective logic channels (see col. 5, lines 49-51, packet data units already assigned reads on claimed initial PDU). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Yi to include allocating a maximum packet data unit (PDU) value and transmitting an initial PDU value from the MAC layer because the PDU values in Hermann relate to the amount of data traffic in Yi and it would improve the efficiency of Yi's system for allocating radio resources to the RLC layers.

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Regarding claim 2 Herrmann teaches determining at the MAC layer a mapping status of the logic channels for the respective transmission channels, and determining a priority of the respective logic channels (see col. 5, lines 16-28). Herrmann teaches selecting among the TFCS the TFC that allocates the maximum PDU value to the transmission channel on which the logic channel having the highest priority is mapped (see col. 5, lines 43-56). Herrmann teaches reselecting among selected TFCs the TFC that allocates the maximum PDU value to the transmission channel on which the logic channel having the next-to-highest priority is mapped if a plurality of TFCs are selected (see col. 5, lines 56-60). Herrmann teaches repeating a step until one of the TFCs is selected, and if one of the TFCs is selected, setting the TFC as the initial TFC (see col. 5, lines 61-67 and col. 6, lines 1-3 & 41-48).

Regarding claim 3 Herrmann teaches allocating at the MAC layer the initial PDU value according to the initial TFC to the corresponding transmission channel (see col. col. 4, lines 40-45 and col. 5, lines 43-52, transport set at beginning of a transmission time relates to initial TFS and packet data units already assigned relates to initial PDU). Herrmann teaches allocating the allocated initial PDU value to the logic channel having the highest priority among the logic channels mapped on the respective transmission channel and transmitting the initial PDU value allocated to the logic channel to the RLC layer including the logic channel (see col. 5, lines 43-53).

Regarding claim 4 Herrmann teaches comparing at the RLC layer the received initial PDU value and a maximum transmission amount of a transmission buffer provided in the RLC layer, and if the initial PDU value is larger than the maximum transmission amount, the RLC layer sets the maximum transmission value as the final PDU value, while if the initial PDU is

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smaller than the maximum transmission amount, it sets the initial PDU value as the final PDU value (see col. 4, lines 40-45 & 55-64 and col. 7, lines 28-46, packet data units already assigned relates to initial PDU).

Regarding claim 5 Herrmann teaches receiving at the RLC layer the initial PDU value transmitted to the MAC layer where the initial transmission data is generated along with buffer occupancy information of a transmission buffer by dividing or combining the initial transmission data according to the set final PDU value during the generation of the initial transmission data; and setting the received initial PDU value as the final PDU value (see col. 4, lines 55-64 and col. 7, lines 42-46).

Regarding claim 6 Yi teaches a method of setting a transport format combination (TFC) in a broadband code division multiple (CDMA) communication system (see paragraph [0030]). Yi teaches transmitting from a radio resource control layer (RRC) transport format set (TFS) information and transport format combination set (TFCS) information during a channel initialization for data transmission among respective layers of the broadband CDMA communication system (see paragraph [0029], RRC layer initially sending basic measurement information reads on claimed transmitting from a RRC transport format set (TFS) information and transport format combination set (TFCS) information because the measurement information is used to determine TFC sets). Yi teaches selecting at a medium access control (MAC) layer an initial TFC using the received TFS information and the TFCS information, allocating a radio bearer according to the initial TFC to the logic channels mapped on the corresponding transmission channel (see paragraph [0029] and FIG. 4, MAC Layer allocating radio resources using the initial information reads on selecting at a medium access control (MAC) layer an initial

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TFC, wherein the allocation is initially achieved by analyzing the received TFS information and the TFCS information). Yi teaches transmitting radio resource information from the MAC layer to a radio link control (RLC) layer including respective logic channels by allocating a radio bearer according to the initial TFC to the respective logic channels before receiving buffer occupancy information from the radio link control (RLC) layer (see paragraph [0030] and FIG. 4). Yi teaches transmitting at the radio link control (RLC) layer initial transmission data along with buffer occupancy information of a transmission buffer to the MAC layer based on the received radio resource information (see paragraph [0031]). Yi does not specifically teach allocating a packet data unit (PDU) value and transmitting an initial PDU value from the MAC layer. Hermann teaches allocating an initial PDU value and transmitting from the MAC layer to a radio link control (RLC) layer by allocating the initial PDU value according to the respective logic channels (see col. 5, lines 49-51, packet data units already assigned reads on claimed initial PDU). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Yi to include allocating a packet data unit (PDU) value and transmitting an initial PDU value from the MAC layer because the PDU values in Hermann relate to the amount of data traffic in Yi and it would improve the efficiency of Yi's system for allocating radio resources to the RLC layers.

Regarding claim 7 Yi teaches a method of setting a transport format combination (TFC) in a broadband code division multiple (CDMA) communication system (see paragraph [0030]). Yi teaches receiving at a medium access control (MAC) layer transport format set (TFS) information and transport format combination set (TFCS) information from a radio resource control layer (RRC) during a channel initialization for data transmission among respective layers

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of the broadband CDMA communication system (see paragraph [0029], RRC layer initially sending basic measurement information reads on claimed transmitting from a RRC transport format set (TFS) information and transport format combination set (TFCS) information because the measurement information is used to determine TFC sets). Yi teaches selecting an initial TFC by wherein the allocation is initially achieved by analyzing the received TFS information and the TFCS information, wherein the initial TFC preferentially allocates a radio bearer to a transmission channel on which a logic channel having a relatively high priority among a plurality of transmission channels has been mapped (see paragraph [0029] and FIG. 4, MAC Layer allocating radio resources using the initial information reads on selecting at a medium access control (MAC) layer an initial TFC, wherein the allocation is initially achieved by analyzing the received TFS information and the TFCS information). Yi teaches transmitting radio resource information to a radio link control (RLC) layer including respective logic channels before receiving buffer occupancy information from the radio link control (RLC) layer (see paragraph [0030] and FIG. 4). Yi teaches transmitting at the radio link control (RLC) layer initial transmission data along with buffer occupancy information of a transmission buffer to the MAC layer based on the received radio resource information (see paragraph [0031]). Yi does not specifically teach allocating a maximum packet data unit (PDU) value and transmitting an initial PDU value from the MAC layer. Herrmann teaches allocating a maximum packet data unit (PDU) value (see col. 5, lines 24-25). Hermann teaches transmitting an initial PDU value from the MAC layer to a radio link control (RLC) layer by allocating the initial PDU value according to the respective logic channels (see col. 5, lines 49-51, packet data units already assigned reads on claimed initial PDU). It would have been obvious to one of ordinary skill in the art at the

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time the invention was made to modify the device in Yi to include allocating a maximum packet data unit (PDU) value and transmitting an initial PDU value from the MAC layer because the PDU values in Hermann relate to the amount of data traffic in Yi and it would improve the efficiency of Yi's system for allocating radio resources to the RLC layers.

# Response to Arguments

2. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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#### Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869.

The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 7, 2008

SUPERVISORY PATENT EXAMINES